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EXAMINER	
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ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/626,340	CHU ET AL.	
	Examiner	Art Unit	
	Kimberly Lovel	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 July 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/24/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-31 are rejected.

Drawings

2. Figures 1, 2, 3A, 3B, 3C, 4A, 4B, 4C, 6, 7 and 8 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig 8, item 800; Fig 10, items 1030, 1031 and 1032; and Fig 11, item 1100. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 4, 17, 20 and 27 are objected to because of the following informalities:

Claim 4 is objected to because the claim refers to itself. In order to allow for compact prosecution, the examiner assumes that claim 4 should recite, "The method according to claim 3." Also, claim 4 recites "("XML")." The examiner suggests that the quotations within the parentheses be removed.

Claims 17 and 20 are objected to because the claims are duplicate claims. Both claims recite, "The method according to claim 13, wherein the first syntax level represents at least one extension of the second syntax level."

Claim 27 is objected to because the claim recites the limitation "the first syntax level" in line 1. Since claim 26 recites "a first level" in line 4, there is insufficient antecedent basis for the limitation "the first syntax level" in claim 27.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 and 13 are rejected under 35 U.S.C. 112, first paragraph, as representing single means claims. According to MPEP 2164.08(a), "*A single means claim, i.e., where a means recitation does not appear in combination with another recited element of means, is subject to an undue breadth rejection under 35 U.S.C. 112, first paragraph. In re Hyatt, 708 F.2d 712, 714-715, 218 USPQ 195, 197 (Fed. Cir. 1983) (A single means claim which covered every conceivable means for achieving the stated purpose was held nonenabling for the scope of the claim because the specification disclosed at most only those means known to the inventor.). When claims depend on a recited property, a fact situation comparable to Hyatt is possible, where the claim covers every conceivable structure (means) for achieving the stated property (result) while the specification discloses at most only those known to the inventor.*"

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 13 and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites, "A method of casting objects, further comprising a step of validating an input according to a first syntax level while generating output, from the input, according to a second syntax level." Since the claim is an independent claim, it is unclear how the method can further comprise of a step.

Claim 24 recites, "A system for applying abstraction to object markup definitions, further comprising: a validating parser; first means for using the validating parser to validate an input document expressed as an object markup definition, wherein the validation is performed according to a syntax level which allows the object markup definition to be successfully validated; and second means for using the validating parser to apply abstraction to the object markup definition when generating an output object, responsive to the first means, wherein the application of abstraction generates the output object according to a different syntax level which would not allow the object markup definition to be successfully validated." Since the claim is an independent claim, it is unclear how the method can further comprise of a step.

To allow for compact prosecution, the examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 112 rejections.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 IV.B.2.(b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at

296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application.

Claim 1 recites a method of selecting an abstraction level to use when generating parser output, comprising a step of requesting generation of parser output, by a parser that parses an input, such that the generated output adheres to a different syntax level than a syntax level used when validating the input.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result.

For the result to be tangible, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim consists of a parser generating output at a different syntax level than the input. It is unclear to as what kind of tangible output is obtained by these limitations. Claims 2-12 are dependent on the method of claim 1, and therefore are rejected on the same grounds as claim 1.

Claim 13 recites a method of casting objects, further comprising a step of validating an input according to a first syntax level while generating output, from the input, according to a second syntax level. In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result.

For the result to be tangible, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim validates an input while generating an output. It is unclear to as what kind of tangible output is obtained by these limitations. Claims 14-23 are dependent on the method of claim 13, and therefore are rejected on the same grounds as claim 13.

Claim 24 recites a system for applying abstraction to object markup definitions, further comprising: a validating parser; first means for using the validating parser to validate an input document expressed as an object markup definition, wherein the validation is performed according to a syntax level which allows the object markup definition to be successfully validated; and second means for using the validating parser to apply abstraction to the object markup definition when generating an output object, responsive to the first means, wherein the application of abstraction generates the output object according to a different syntax level which would not allow the object markup definition to be successfully validated.

Even though claim 24 recites a system, the claim is directed towards software per se. Software per se fails to produce a tangible result. In order for the subject matter to be considered tangible, it must produce a useful, concrete and tangible result. Claim 25 is dependent on the system of claim 24, and therefore is rejected on the same grounds as claim 24.

To allow for compact prosecution, the examiner will apply prior art to these claims as best understood, with the assumption that applicant will amend to overcome the stated 101 rejections.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-12, 24-26 and 29-30 are rejected under 35 U.S.C. 102(e) as being anticipated by US PGPub 2003/0208498 to Feinberg et al (hereafter Feinberg et al).

Referring to claim 1, Feinberg et al disclose a method of selecting an abstraction level to use when generating parser output (see abstract – according to page 17, lines 11-12 of the applicant's specification, the act of selecting an abstraction level is defined as an application specifying its desired extension level; the parameter

file is considered to represent *selecting an abstraction level* since the parameter file includes instructions for modifying the input schema), comprising a step of requesting generation of parser output (see [0049]; [0051]; and [0054], lines 3-5 – inputting data into the parser is considered to represent requesting the *generation of parser output*), by a parser that parses an input (see [0049], lines 1-2 and Fig 2, item 206 – the validating parser parses the XML file which is considered to represent the input), such that the generated output adheres to a different syntax level than a syntax level used when validating the input (see [0021] – the syntax level used when validating the input is defined by the design time schema and the syntax level that the generated output adheres to is defined by the run time schema).

Referring to claim 2, Feinberg et al disclose the method according to claim 1, wherein the validation is performed by the parser (see [0051], lines 1-2 and Fig 2, item 206).

Referring to claim 3, Feinberg et al disclose the method according to claim 1, wherein the input is a structured document (see [0049], lines 1-2 and Fig 2, item 202 – the XML document is considered to represent the *structured document*).

Referring to claim 4, Feinberg et al disclose the method according to claim 4, wherein the structured document is encoded in Extensible Markup Language ("XML") (see [0047]; [0048]; and [0049], lines 1-2).

Referring to claim 5, Feinberg et al disclose the method according to claim 1, wherein the generated output comprises one or more object representations generated from the input (see [0049]; see [0050], lines 4-7; [0065]; Fig 5, line 503; and Fig 8a, line

821 – the run time schema is considered to represent the *output*; the run time schema is generated from the xml file and the design time schema, which are considered to represent the *input*; the contact is considered to represent the *object* that is being represented).

Referring to claim 6, Feinberg et al disclose the method according to claim 1, wherein the parser is a validating parser that also performs the validation of input (see [0049], lines 1-2 and Fig 2, item 206).

Referring to claim 7, Feinberg et al disclose the method according to claim 1, wherein the requesting step further comprises the step of specifying a schema name to which the generated output must adhere (see [0066], lines 10-12 – the schema name to be used to validate the input and then generate the output is entered in the command line; this process is considered to represent *the step of specifying a schema name to which the generated output must adhere*).

Referring to claim 8, Feinberg et al disclose the method according to claim 1, wherein the requesting step further comprises the step of specifying a schema name to be used by the parser when generating the output (see [0061], lines 9-11; [0070], lines 1-5; and [0071], lines 8-10 – both a target namespace for the generated schema and a name of the output file for the schema are specified).

Referring to claim 9, Feinberg et al disclose the method according to claim 8, wherein the schema name is specified as a feature of the parser (see [0061], lines 9-11; [0070], lines 1-5; and [0071], lines 8-10 – both a target namespace for the generated schema and a name of the output file for the schema are specified; the target

namespace and the name of the output are considered to be a feature of the parser since the names are specified in the parameter file, which is one of the inputs into the parser).

Referring to claim 10, Feinberg et al disclose the method according to claim 8, wherein the schema name is specified by an application program for which an instance of the parser is created (see [0036], lines 1-5 and [0061], lines 9-11 – the parameter file includes the *schema name*; the parameter file is executed through the *application program*).

Referring to claim 11, Feinberg et al disclose the method according to claim 1, wherein the syntax level used for validating is specified in the input (see [0066], lines 10-12 – the design time schema is considered to define the syntax level used for validating; the name of the schema to use can be provided on the command line as input).

Referring to claim 12, Feinberg et al disclose the method according to claim 11, wherein the specification in the input uses a schema location construct in the input (see [0059], lines 1-3 and Fig 5, line 502 – page 6, lines 9-14 of the applicant's specification states that the schema location element specifies the resource name for the schema).

Referring to claim 24, Feinberg et al discloses a system for applying abstraction to object markup definitions (see abstract), further comprising:

a validating parser (see [0051], lines 1-2 and Fig 2, item 206);

first means for using the validating parser to validate an input document expressed as an object markup definition (see [0036]-[0046] and [0049] – the *input*

document is in an XML file), wherein the validation is performed according to a syntax level which allows the object markup definition to be successfully validated (see [0047]-[0048] – the design time schema allows for the syntax level to be successfully validated); and

second means for using the validating parser to apply abstraction to the object markup definition when generating an output object, responsive to the first means, wherein the application of abstraction generates the output object according to a different syntax level which would not allow the object markup definition to be successfully validated (see [0036]-[0046] and [0055] – the run time schema is considered to represent a different syntax level; the run time schema is used to validate the new syntax level; the design time schema is not able to validate the new syntax level).

Referring to claim 25, Feinberg et al disclose the system according to claim 24, wherein the different syntax level is requested by an application program that will consume the generated output object (see [0036] – a developer can use an application programming interface to implement the system of selecting a syntax level).

Referring to claim 26, Feinberg et al disclose a computer program product for improved parsing of input, the computer program product embodied on one or more computer-usable media (see abstract and [0039]) and comprising:

computer-readable program code means for validating an input according to a first schema (see [0036]-[0046] and [0049] - the *input document* is in an XML file; the design time schema is considered to represent the *first schema*), wherein the first

schema defines a first level that enables content in the input to be successfully validated (see [0047]-[0048] – the design time schema allows for the syntax level to be successfully validated); and

computer-readable program code means for generating one or more output objects according to a second schema, upon parsing the successfully-validated content in the input, wherein the second schema defines a second syntax level that does not enable the content in the input to be successfully validated (see [0036]-[0046] and [0055] – the run time schema is considered to represent a different syntax level; the run time schema is used to validate the new syntax level; the design time schema is not able to validate the new syntax level).

Referring to claim 29, Feinberg et al disclose the computer program product according to claim 26, wherein the first schema is defined as an extension of some intermediate schema that extends the second schema (see [0057]-[0058]; [0060]; and [0064] – the design time schema is considered to represent the *first syntax level*; the parameter file is considered to represent the *intermediate schema*; the *generated output* adheres to the run time schema, which is considered to represent the *second syntax level*).

Referring to claim 30, Feinberg et al disclose the computer program product according to claim 26, wherein the second schema is a base schema upon which one or more extensions are based, and wherein the second schema is one of the extensions and is based either directly on the base schema or on an intermediate schema that

extends the base schema (see [0057]-[0058] – the design time schema is considered to represent the *first syntax level*).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 13-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0208498 to Feinberg et al in view of the article "XQuery 1.0 and XPath 2.0 Functions and Operators" written by W3C (hereafter W3C).

Referring to claim 13, Feinberg et al teaches a step of validating an input according to a first syntax level (see [0021]; [0049], lines 1-2; and Fig 2, item 206 – the

validating parser parses the XML file based on the design time schema) while generating output, from the input, according to a second syntax level (see [0021] – the syntax level of the generated output adheres to is defined by the run time schema). However, Feinberg et al fails to explicitly teach casting objects. W3C teaches a step of validating an input according to a first syntax level while generating output, from the input, according to a second syntax level including casting objects. In particular, W3C discloses a method of casting objects (see section 17: Casting), further comprising a step of validating an input according to a first syntax level while generating output, from the input, according to a second syntax level (see section 17:Casting, lines 1-4 and section 17.7: Casting to xs:string, xs:anySimpleType and xdt:untypedAtomic – source value, SV, of a source type, ST, is considered to represent the *input*; target value, TV, of the given target type, TT, is considered to represent the *output*; the input and output have different syntax levels which is considered to represent the existence of a *first syntax level* and a *second syntax level*; see section 17.9: Casting to Duration Types, lines 3-4 – validation of the input).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Feinberg et al's step of validating an input according to a first syntax level while generating output, from the input, according to a second syntax level as a limitation to W3C's method of casting objects. One would have been motivated to do so since Feinberg's steps utilize documents written in XML, which is a language developed by W3C (Feinberg et al: see [0002], lines 1-3).

Referring to claim 14, the combination of Feinberg et al and W3C (hereafter Feinberg/W3C) discloses the method according to claim 13, wherein the second syntax level is a less-restrictive version of the first syntax level (W3C: see section 17.3: Casting from Derived Types to Parent Types – the original type is considered to represent the *first syntax level*; the original type is cast to a type from which it was derived from meaning that the original type is a subset of the value space of the target type; a subset is considered to be more-restrictive version; therefore, the transformation of the first syntax level to the second syntax level is considered to be a less-restrictive version).

Referring to claim 15, Feinberg/W3C discloses the method according to claim 13, wherein the first syntax level is a more-restrictive definition of the second syntax level (W3C: see section 17.3: Casting from Derived Types to Parent Types – the original type is considered to represent the *first syntax level*; the original type is cast to a type from which it was derived from meaning that the original type is a subset of the value space of the target type; a subset is considered to be more-restrictive version).

Referring to claim 16, Feinberg/W3C discloses the method according to claim 13, wherein the first syntax level is an extension of the second syntax level (W3C: see section 6.2: Operators on Numeric Values, line 6 – integer is an extension of the base type decimal).

Referring to claim 17, Feinberg/W3C discloses the method according to claim 13, wherein the first syntax level represents at least one extension of the second syntax level (W3C: see section 6.2: Operators on Numeric Values, line 6 – integer is an extension of the base type decimal).

Referring to claim 18, Feinberg/W3C discloses the method according to claim 13, wherein the first syntax level and the second syntax level are defined using schemas (Feinberg et al: see [0021]; [0057]-[0058]; [0064]-[0065] – the design time schema is considered to represent the *first syntax level*; the run time schema is considered to represent the *second syntax level*).

Referring to claim 19, Feinberg/W3C discloses the method according to claim 18, wherein the schema that defines the first syntax level is an extension of the schema that defines the second syntax level (Feinberg et al: see [0057]-[0058] – the design time schema is considered to represent the *first syntax level*).

Referring to claim 20, Feinberg/W3C discloses the method according to claim 13, wherein the first syntax level represents at least one extension of the second syntax level (W3C: see section 6.2: Operators on Numeric Values, line 6 – integer is an extension of the base type decimal).

Referring to claim 21, Feinberg/W3C discloses the method according to claim 13, wherein the generated output adheres to the second syntax level (Feinberg et al: see [0064] – the *generated output* adheres to the run time schema, which is considered to represent the *second syntax level*).

Referring to claim 22, Feinberg/W3C discloses the method according to claim 13, wherein the input adheres to an extended schema that defines the first syntax level (Feinberg et al: see [0057]-[0058] – the design time schema is considered to represent the *first syntax level*).

Referring to claim 23, Feinberg/W3C discloses the method according to claim 22, wherein the generated output adheres to a base schema that is extended by the extended schema (Feinberg et al: see [0057]-[0058] – the design time schema is considered to represent the *first syntax level*).

11. Claims 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0208498 to Feinberg et al as applied to claim 26 above, and further in view of the article "XQuery 1.0 and XPath 2.0 Functions and Operators" written by W3C.

Referring to claim 27, Feinberg et al disclose a computer program product for improved parsing of input comprising a first syntax level and a second syntax level. However, Feinberg et al fail to explicitly teach the further limitation wherein the first syntax level is a more-restrictive version of the second syntax level. W3C teaches a computer program product for improved parsing similar to that of Feinberg et al, including the further limitation of the syntax levels. In particular, W3C teaches a computer program product similar to claim 26, wherein the first syntax level is a more-restrictive version of the second syntax level (see section 17.3: Casting from Derived Types to Parent Types – the original type is considered to represent the *first syntax level*; the original type is cast to a type from which it was derived from meaning that the original type is a subset of the value space of the target type; a subset is considered to be more-restrictive version).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use different levels of syntax discussed by W3C as a limitation of

the computer program product for improved parsing of input comprising a first syntax level and a second syntax level. One would have been motivated to do so since Feinberg's steps utilize and produce documents written in XML, which is a language developed by W3C (Feinberg et al: see [0002], lines 1-3).

Referring to claim 28, Feinberg et al disclose a computer program product for improved parsing of input comprising a first syntax level defined by a first schema and a second syntax level defined by a second schema. However, Feinberg et al fail to explicitly teach the further limitation wherein the first schema is defined as an extension of the second schema. W3C teaches a computer program product for improved parsing similar to that of Feinberg et al, including the further limitation of the schemas. In particular, W3C teaches a computer program product similar to claim 26, wherein the first schema is defined as an extension of the second schema (see section 6.2: Operators on Numeric Values, line 6 – integer is an extension of the base type decimal).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use different levels of schemas discussed by W3C as a limitation of the computer program product for improved parsing of input comprising a first syntax level defined by a first schema and a second syntax level defined by a second schema. One would have been motivated to do so since Feinberg's steps utilize and produce documents written in XML, which is a language developed by W3C (Feinberg et al: see [0002], lines 1-3).

12. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over US PGPub 2003/0208498 to Feinberg et al in view of US Patent No 6,996,589 to Jayaram et al (hereafter Jayaram et al).

Referring to claim 31, Feinberg et al disclose a method of providing validation and parsing. In particular, Feinberg et al disclose a method of doing business by providing improved validation and parsing for clients (see abstract), comprising steps of:

providing a validating parser that enables a client to dynamically select an abstraction level for use when generating output from the validating parser (see abstract; [0049]; [0051]; and [0054], lines 3-5 – according to page 17, lines 11-12 of the applicant's specification, the act of selecting an abstraction level is defined as an application specifying its desired extension level; the parameter file is considered to represent *selecting an abstraction level* since the parameter file includes instructions for modifying the input schema; inputting data into the parser is considered to represent requesting the *generation of parser output*);

obtaining an input document to be validated and parsed for the client (see [0049], lines 1-2 – the XML document is considered to represent the *input document*);

validating the input document with the provided validating parser (see [0049], lines 1-2), wherein the validation is performed according to a first syntax level associated with syntax specified in the input document (see [0021] - the syntax level used when validating the input is defined by the design time schema);

generating output from the input document with the provided validating parser, wherein the generated output has syntax that conforms to the abstraction level that has

been dynamically selected by the client and wherein the abstraction level is a refinement of the first syntax level (see [0049]; [0051]; and [0054], lines 3-5 – inputting data into the parser is considered to represent requesting the *generation of parser output*; see [0021] - the syntax level used when validating the input is defined by the design time schema); and

charging a fee for at least one of the providing, obtaining, validating, and generating steps.

Feinberg et al fail to explicitly teach the further limitation of charging a fee for at least one of the providing, obtaining, validating, and generating steps. Jayaram et al disclose a method for database conversion (see abstract), including the further limitation. In particular, Jayaram et al teach charging a fee for at least one of the providing, obtaining, validating, and generating steps (see column 11, lines 21-31 – a billing address is obtained from the recipient for the act of providing).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Jayaram et al's method of charging a fee in return for providing a service as a component of Feinberg et al's method of providing validation and parsing. One would have been motivated to do so since the service of validating and parsing an XML document can be seen as useful to a client due to the reasoning that if an XML file is invalid, an application processing the file has to stop and report an error (Feinberg et al: see [0005]).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US PGPub 2004/0083219 to Hu et al titled "Method and System for Reducing Code in an Extensible Markup Language Program"
- US PGPub 2004/0002952 to Lee et al titled "Apparatus and Method for Parsing XML Document by using External XML Validator"
- US PGPub 2004/0210828 to Langer titled "Web Interaction System which Enables a Mobile Telephone to Interact with Web Resources." Langer discloses a method of type casting.

Contact Information

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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kml
10 April 2006

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